

Title (en)
POLYMER PRODUCING METHOD, AND A FLOW-TYPE REACTION SYSTEM FOR PRODUCING POLYMER

Title (de)
POLYMERHERSTELLUNGSVERFAHREN UND FLUSSARTIGES REAKTIONSSYSTEM ZUR HERSTELLUNG VON POLYMER

Title (fr)
PROCÉDÉ DE PRODUCTION D'UN POLYMÈRE ET SYSTÈME RÉACTIONNEL DE TYPE À ÉCOULEMENT POUR LA PRODUCTION D'UN POLYMÈRE

Publication
EP 3858870 A1 20210804 (EN)

Application
EP 19867628 A 20190909

Priority
• JP 2018181794 A 20180927
• JP 2019035317 W 20190909

Abstract (en)
Provided is a method for manufacturing a polymer by a flow-type reaction, including introducing a liquid A containing an anionic polymerizable monomer and a non-polar solvent, a liquid B containing an anionic polymerization initiator and a non-polar solvent, a liquid C containing a polar solvent, and a polymerization terminator into different flow paths; allowing the liquids to flow in the respective flow paths; allowing the liquid A and the liquid B to join together at a joining portion; allowing a conjoined liquid M^{AB} of the liquid A and the liquid B to join with the liquid C at downstream of the joining portion; subjecting the anionic polymerizable monomer to anionic polymerization while a conjoined liquid M^{ABC} of the conjoined liquid M^{AB} and the liquid C is flowing to downstream in a reaction flow path; and allowing a polymerization reaction solution flowing in the reaction flow path to join with the polymerization terminator so that the polymerization reaction is terminated and a polymer is obtained, in which a polarity of a solvent of the liquid M^{ABC} is made higher than a polarity of a solvent of the liquid M^{AB}. Also provided is a flow-type reaction system suited for performing the manufacturing method.

IPC 8 full level
C08F 2/01 (2006.01); **C08F 2/00** (2006.01); **C08F 4/44** (2006.01)

CPC (source: EP US)
B01J 19/0093 (2013.01 - EP); **B01J 19/1812** (2013.01 - US); **C08F 2/01** (2013.01 - EP US); **C08F 2/06** (2013.01 - EP US); **C08F 2/38** (2013.01 - US); **C08F 2/42** (2013.01 - US); **C08F 112/22** (2020.02 - EP); **C08K 5/56** (2013.01 - US); **B01J 2219/00792** (2013.01 - EP); **B01J 2219/00795** (2013.01 - EP); **B01J 2219/00822** (2013.01 - EP); **B01J 2219/00826** (2013.01 - EP); **B01J 2219/00831** (2013.01 - EP); **B01J 2219/00833** (2013.01 - EP); **B01J 2219/0086** (2013.01 - EP); **B01J 2219/00873** (2013.01 - EP); **B01J 2219/00889** (2013.01 - EP); **B01J 2219/00894** (2013.01 - EP); **C08F 12/06** (2013.01 - US); **C08F 12/08** (2013.01 - US)

C-Set (source: EP)
1. **C08F 112/22 + C08F 2/01**
2. **C08F 112/22 + C08F 2/06**
3. **C08F 112/22 + C08F 4/48**

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3858870 A1 20210804; **EP 3858870 A4 20211208**; CN 112867739 A 20210528; CN 112867739 B 20230502; JP 7012866 B2 20220128; JP WO2020066561 A1 20210311; US 2021206886 A1 20210708; WO 2020066561 A1 20200402

DOCDB simple family (application)
EP 19867628 A 20190909; CN 201980063924 A 20190909; JP 2019035317 W 20190909; JP 2020548344 A 20190909; US 202117210514 A 20210324